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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/476,189

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Biao Sun

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EXAMINER

BLOUIN, MARK S

ART UNIT

PAPER NUMBER

2653

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/476,189

Applicant(s)

SUN ET AL.

Examiner

Mark Blouin

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 19-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Detailed Action

Response to Amendment

- The reply filed on February 26, 2004 was applied to the following effect: Claim 17 is amended.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Kang et al (USPN 633,835).
3. Regarding Claims 1,5, and 14, Kang et al shows (Figs. 6 and 7) a system for reading and recording data, the system comprising an enclosure, a magnetic disk rotationally mounted within a enclosure, an actuator pivotally mounted within a enclosure and having a distal end adjacent a surface of a magnetic disk (Fig. 1), a slider (substrate) (61) connected with a distal end of a actuator (15) in close proximity to a surface of a magnetic disk (13), a slider having a leading edge, a trailing edge opposite a leading edge, and first and second opposing sides, a base surface on a slider at a first elevation (69), a base surface extending to a corner defined by the intersection of a trailing edge and a second side, a first rail (67c) defined by a raised surface extending from a base surface to a first raised elevation and extending generally lengthwise adjacent a first side of a slider from a location proximal to a leading edge, a second rail (67d)

defined by a raised surface extending from a base surface to a first raised elevation and extending generally lengthwise adjacent a second side of a slider from a location proximal a leading edge, a pad (65c) extending from a base surface at a corner defined by the intersection of a trailing edge and a first side, an intermediate surface (67a,b,g) formed at an elevation between a base surface and a raised elevations of a first and second rails, an intermediate surface extending between a rails and a leading edge and extending between a portion of a first and second rails (67a,b), a magneto-resistive read element (Col 2, lns 43-44) disposed within a slider at the location of a pad, and a magneto-resistive write element (Col 2, lns 43-44) disposed within a slider, adjacent a read element at the location of a pad, and a raised surface having a recessed inner portion defining a cavity opening toward its distal end.

4. Regarding Claims 2,3,4,7, and 8, Kang et al shows (Fig. 6) a system, wherein a first and second rails are asymmetric with respect to one another, wherein a second rail (67d) has a greater surface area than a first rail (67c), wherein a pad has more than one level.

5. Regarding Claims 6,11,12, and 13, Kang et al shows (Fig. 6) a slider further comprising an intermediate surface having an elevation between that of a base surface and that of a rails, a intermediate surface (67a,b) extending from a rails to a leading edge and extending between a portion of a rails wherein a intermediate surface terminates at a location between a rails to define a shoulder extending from a first rail to a second rail, wherein a first and second rails bend to turn toward one another at their ends most proximal to a leading edge, wherein a turned in portions of a rails define there between a channel (73).

6. Regarding Claims 9,10, and 17, Kang et al shows (Fig. 6) a slider, wherein a pad has first (67g) and second levels a second level (65c) having a greater elevation from a base surface than

a first level, and a first level steps up to a second level, wherein a pad has multiple levels, each level being progressively higher than the one before it as they proceed toward the distal end of the substrate, wherein a first level is positioned on a pad to be opposite a trailing edge with respect to a second level.

7. Regarding Claims 15 and 16, Kang et al shows (Fig. 6) a slider further comprising a channel (73) having laterally opposed sides and a floor, formed in a raised surface, and extending from the proximal end of a raised portion to a recessed portion, wherein a floor of a channel extends above a base surface and forms a shoulder with a recessed portion, a shoulder extending laterally from a first channel side to a second channel side.

8. Regarding Claim 18, Kang et al shows (Fig. 6) a slider, wherein said base surface is generally flat as it proceeds toward the distal end of the substrate at the side opposite said pad.

Response to Arguments

9. Applicant's arguments filed in Paper No. 6, filed on February 26, 2004 have been fully considered but they are not persuasive.

Applicant asserts with regard to Claims 1, 5, and 14 that Kang et al does not show “...a base surface on a slider at a first elevation, a base surface extending to a corner defined by the intersection of a trailing edge and a second side...”. However, the Examiner maintains that “...a base surface on a slider at a first elevation, a base surface extending to a corner defined by the intersection of a trailing edge and a second side...” is clearly shown by Kang et al in Figures 6 and 7, where the base surface (69) clearly extends to a corner defined by the intersection of a trailing edge and a second side (of the slider). Therefore the rejection of Claims 1-18 is upheld.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Blouin whose telephone number is (703) 305-5629. The examiner can normally be reached M-F, 6:00 am – 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful the examiner's supervisor, William Korzuch can be reached at (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314 for regular and After Final communications.

Any inquiry of general nature or relating to the status of application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Mark Blouin
Patent Examiner
Art Unit 2653
March 10, 2004


DAVID J. METZ
PRIMARY EXAMINER
ART UNIT 2653